

LOS in CEQA Transportation Analysis



Today's Demands of Transportation

The transportation network must:

- Improve air quality, health, livability
- Reduce GHGs
- Serve more compact/infill land use patterns
- Preserve agricultural land and sensitive habitat
- Provide better access to destinations by providing mobility and supporting proximity

Means of achieving those goals:

- Fewer and shorter vehicle trips
- More carpooling, vanpooling, transit, and active transportation
- More infill development



Local implementation of
Sustainable Communities Strategies

Today's Prevailing Metric: LOS

LOS = Automobile Level of Service

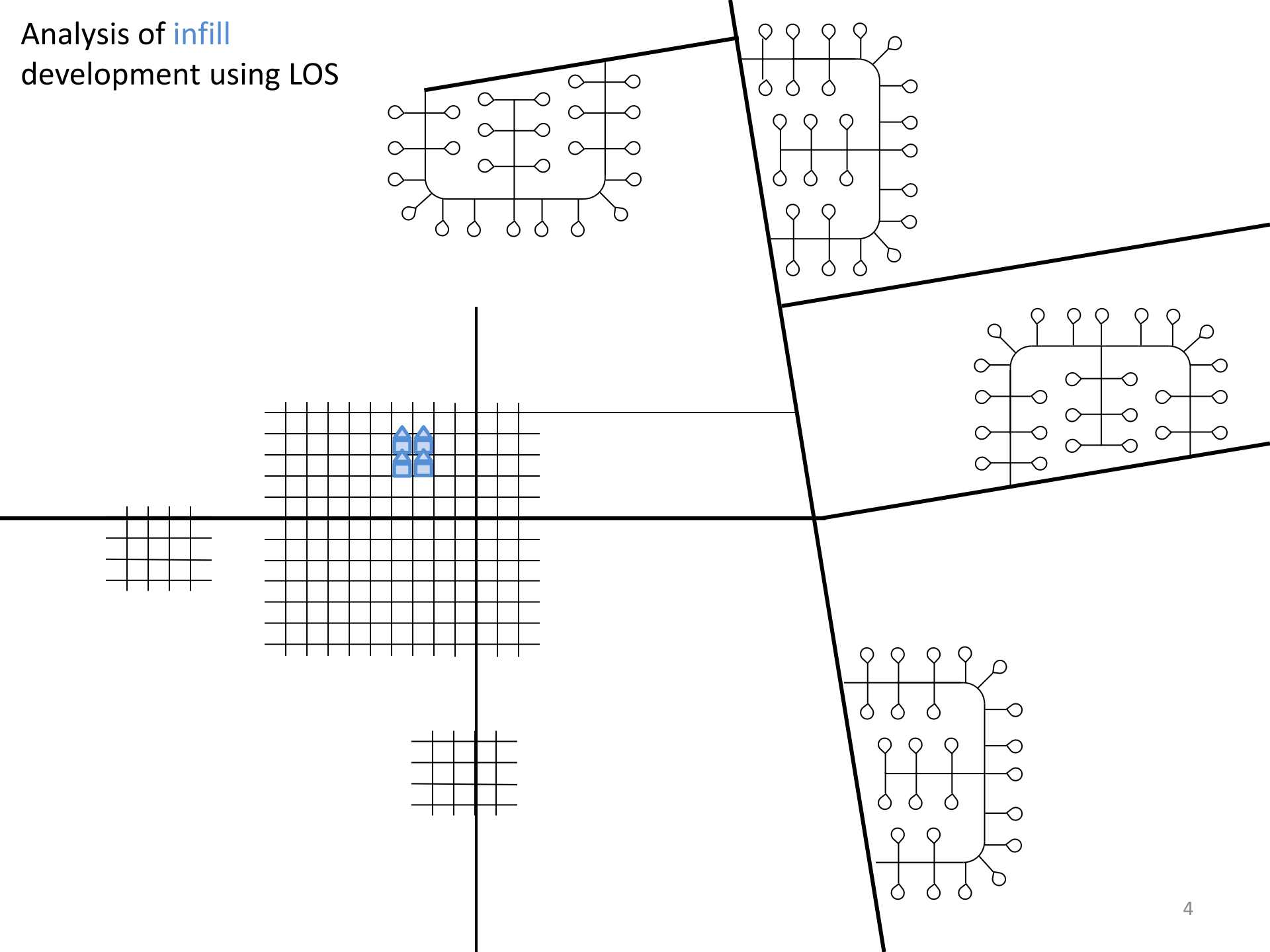
LOS measures delay at individual local intersections and on individual highway segments:

1. A traffic study estimates the number of trips generated and where they will go
2. Those trips are overlain with existing traffic
3. LOS delivers an A to F rating of the intersection or highway segment

Mitigation is triggered at LOS thresholds

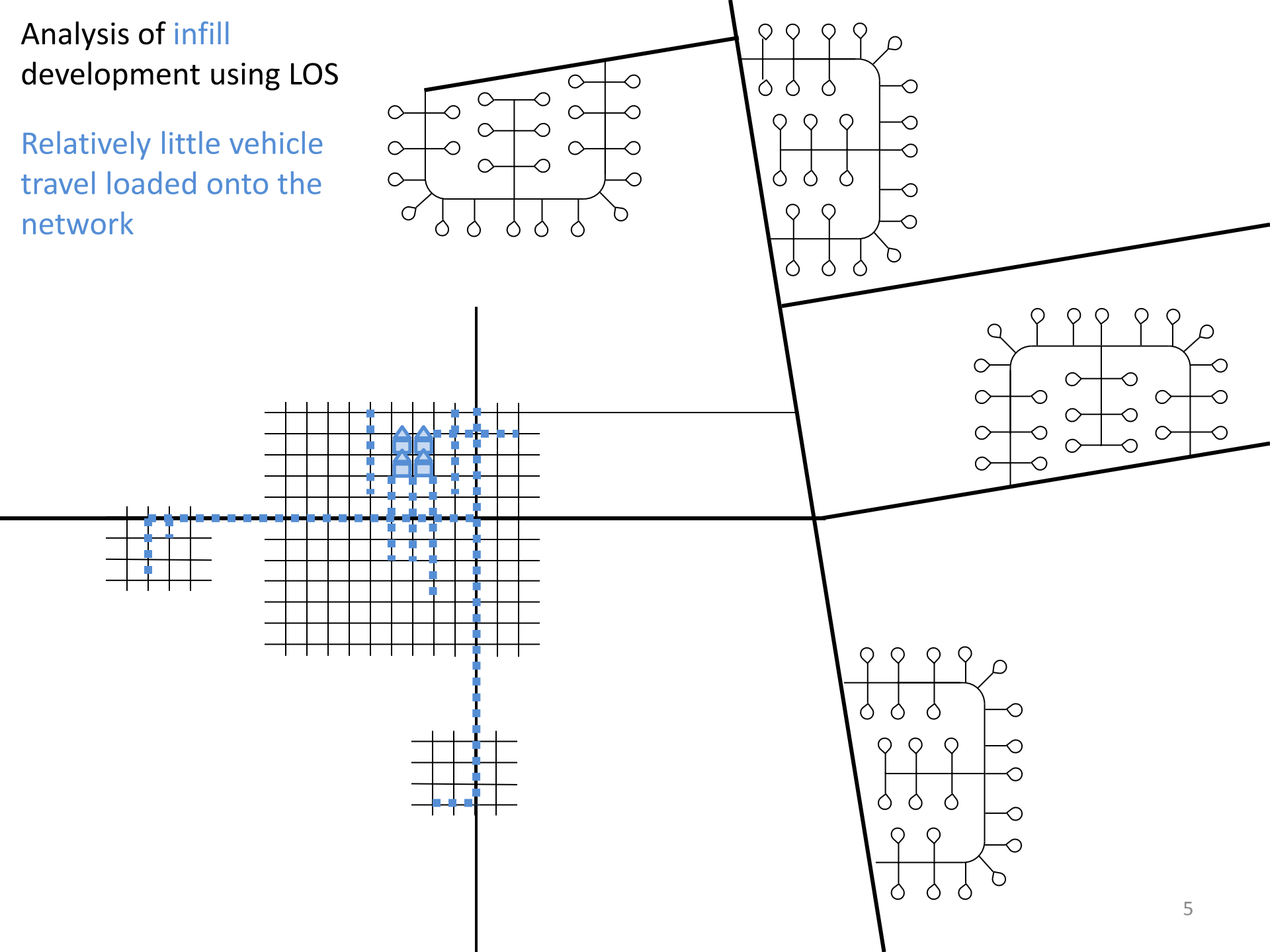
- Thresholds are prescribed by General Plans and Congestion Management law
- Cross a threshold → significant impact under CEQA

Analysis of **infill**
development using LOS



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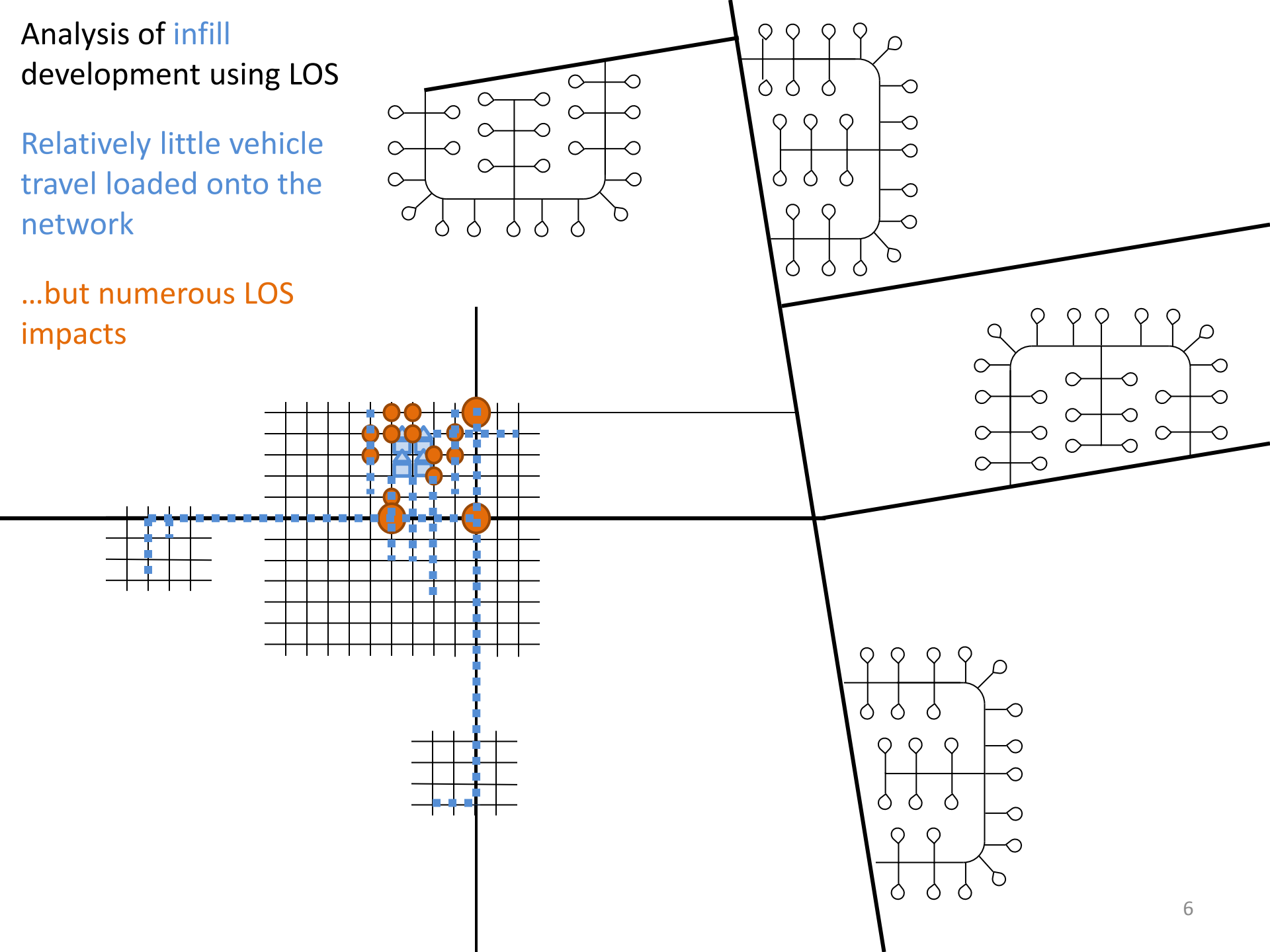
Relatively little vehicle
travel loaded onto the
network



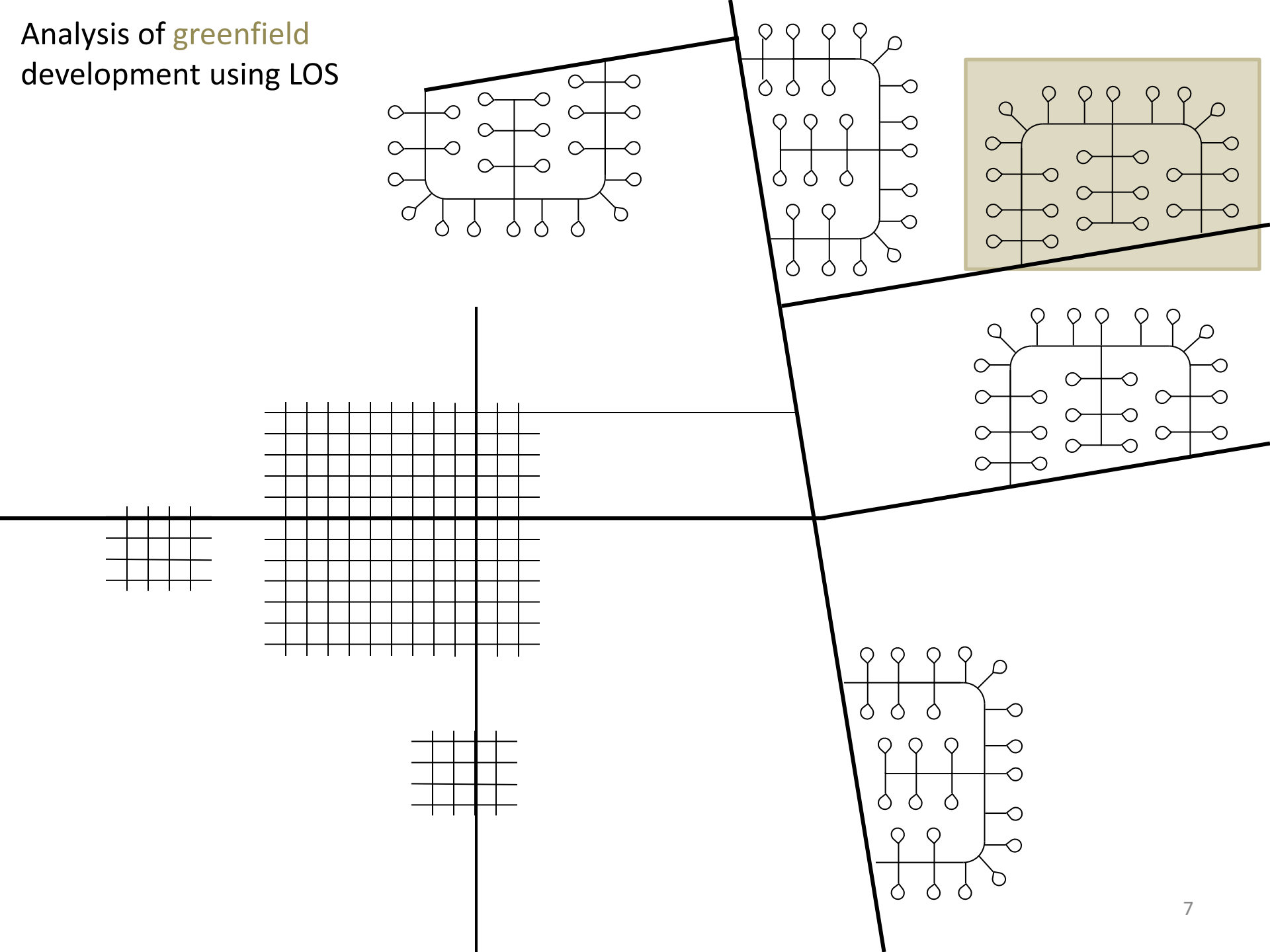
Analysis of infill development using LOS

Relatively little vehicle travel loaded onto the network

...but numerous LOS impacts

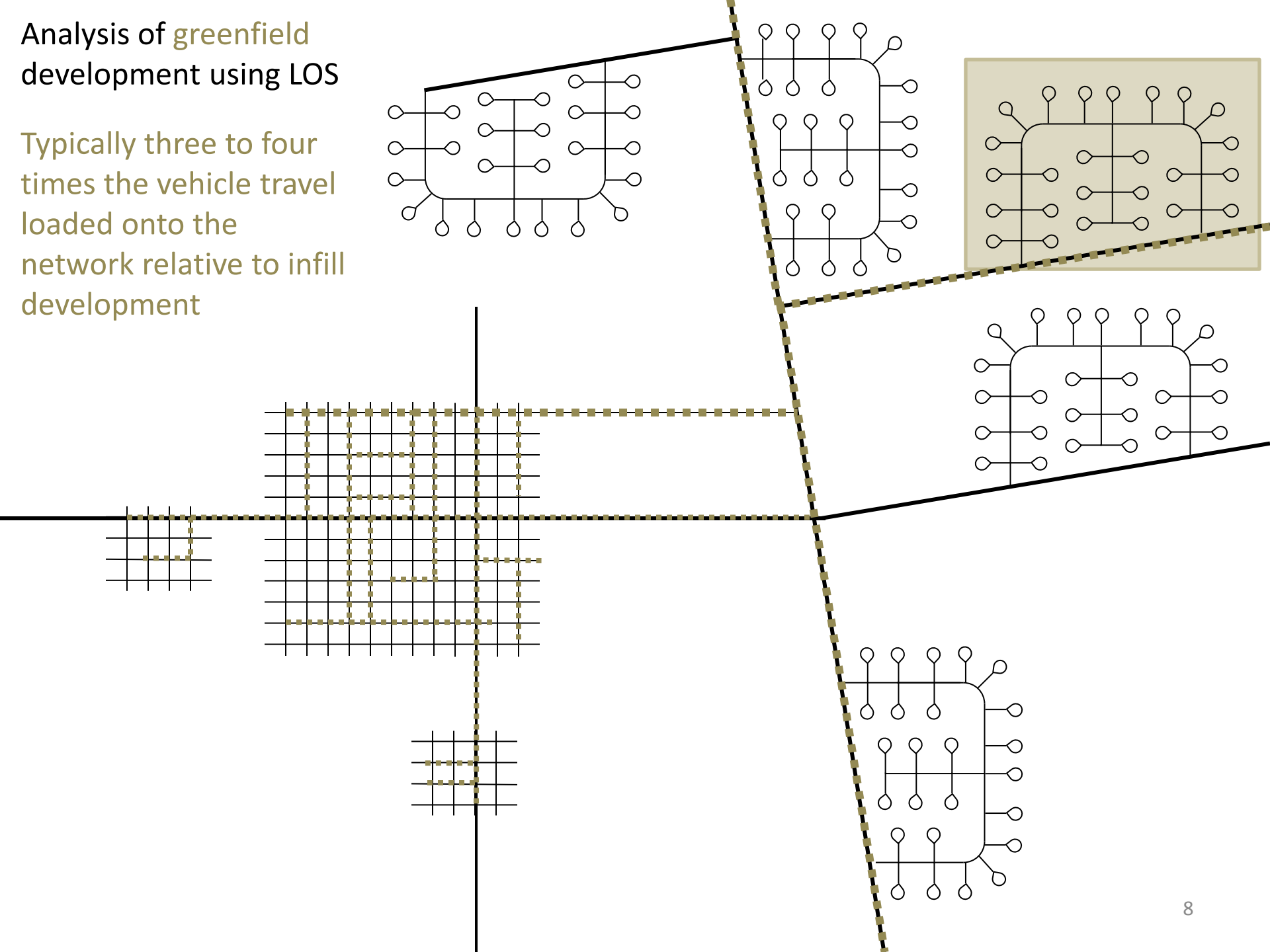


Analysis of greenfield
development using LOS



Analysis of greenfield development using LOS

Typically three to four times the vehicle travel loaded onto the network relative to infill development

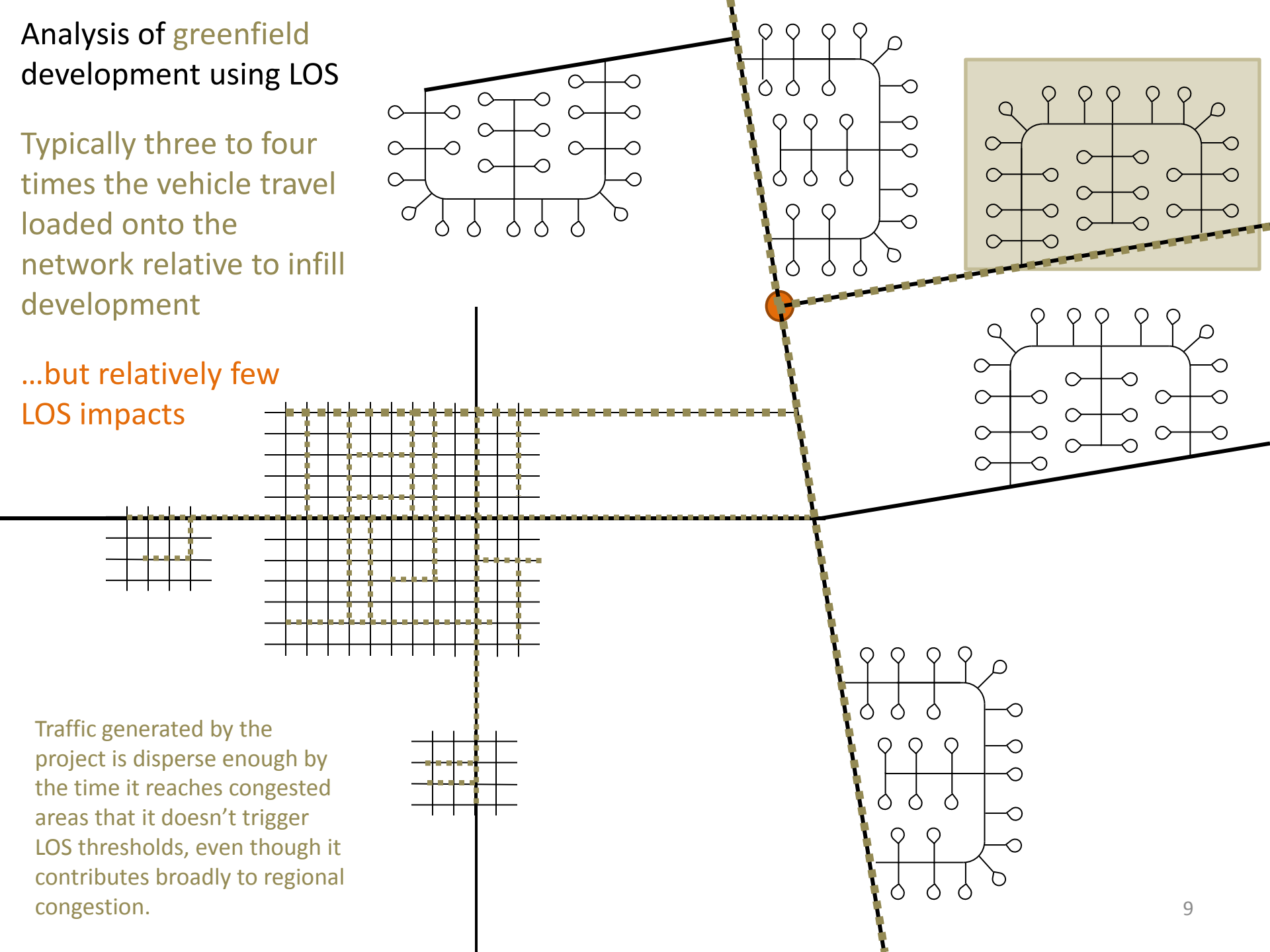


Analysis of greenfield development using LOS

Typically three to four times the vehicle travel loaded onto the network relative to infill development

...but relatively few LOS impacts

Traffic generated by the project is disperse enough by the time it reaches congested areas that it doesn't trigger LOS thresholds, even though it contributes broadly to regional congestion.



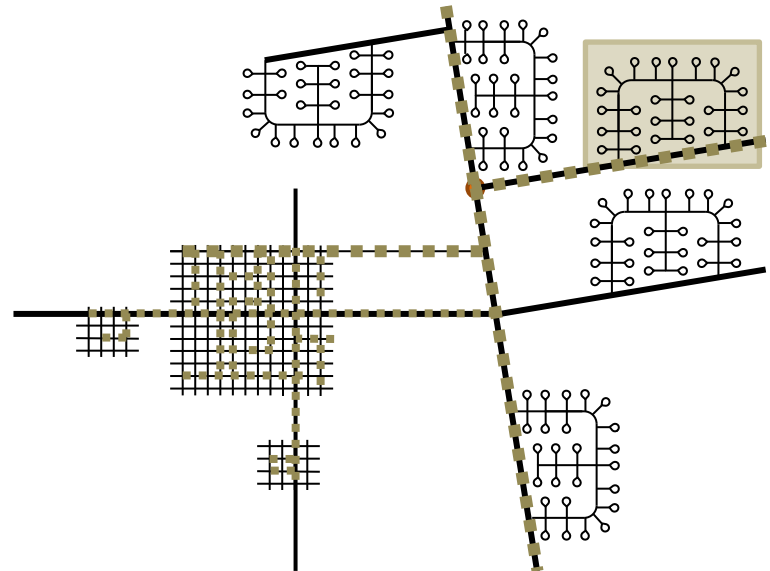
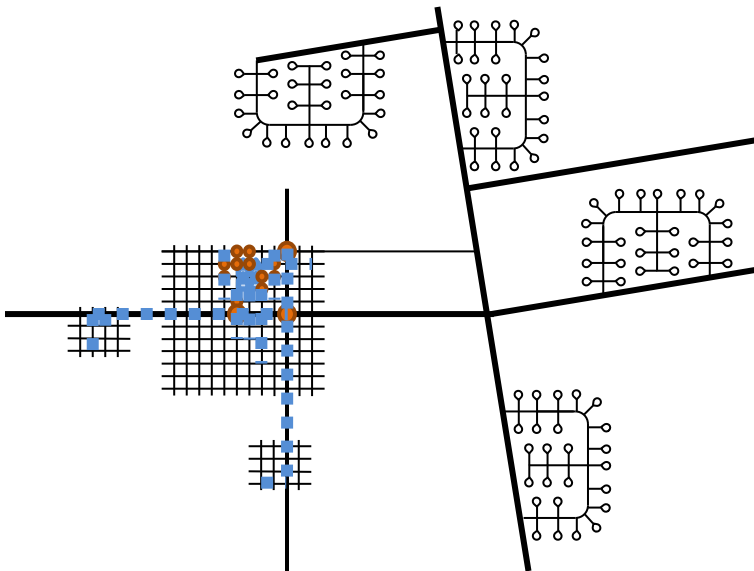
Problems with LOS

1. Scale of analysis is too small

- LOS metric registers impacts adjacent to project, ignores impacts regionally
- Spot roadway widenings don't optimize corridor & network vehicle flow

2. Bias against infill because of “last-in development” problem

- Infill adds to preexisting traffic from nearby projects, triggering LOS thresholds
- Greenfield adds more traffic than infill, but doesn't trigger thresholds



Problems with LOS

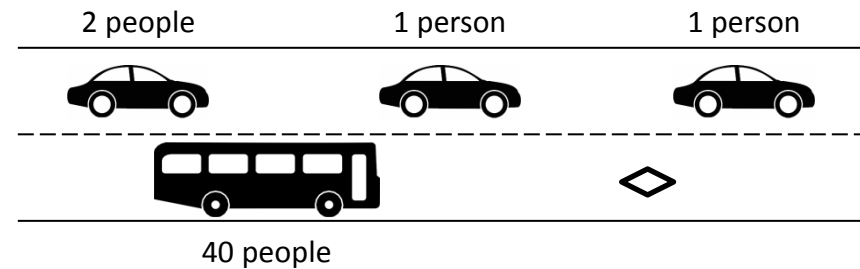
3. LOS mitigation is itself problematic

- *Option 1:* Reduce project trip generation by reducing size → must build elsewhere to accommodate demand
- *Option 2:* Widen roadway → adds delay and hazard for pedestrians and cyclists, induces more vehicle travel



4. Measures movement of vehicles rather than people

- Cars and buses considered with same priority, so a transit priority lane can worsen LOS even as it improves person-throughput
- LOS characterizes pedestrians and cyclists as obstructions to cars, to be channeled/restricted



Outcomes with LOS

LOS makes infill development more difficult

- Infill generates less travel, but under LOS it has more impacts to mitigate

Discouraging infill works against other state goals

- More greenhouse gas emissions
- Less transit oriented development as envisioned in SB 375
- More vehicle travel and overall congestion regionally
- Worse air quality and other environmental and health outcomes
- Greater long-run public expense to maintain longer roads, water, sewer, electrical lines

Additional resources

- OPR “Developing Alternatives to LOS” webpage:
http://www.opr.ca.gov/s_sb743.php
- ***Use of Performance Measures that Prioritize Automobiles over Other Modes in Congested Areas*** - J. Matute and S. Pincetl, California Center for Sustainable Communities, UCLA
<http://next10.org/sites/next10.org/files/2.%20Prioritizing%20Automobiles%20over%20Other%20Modes%20of%20Transportation%20in%20Congested%20Areas.pdf>